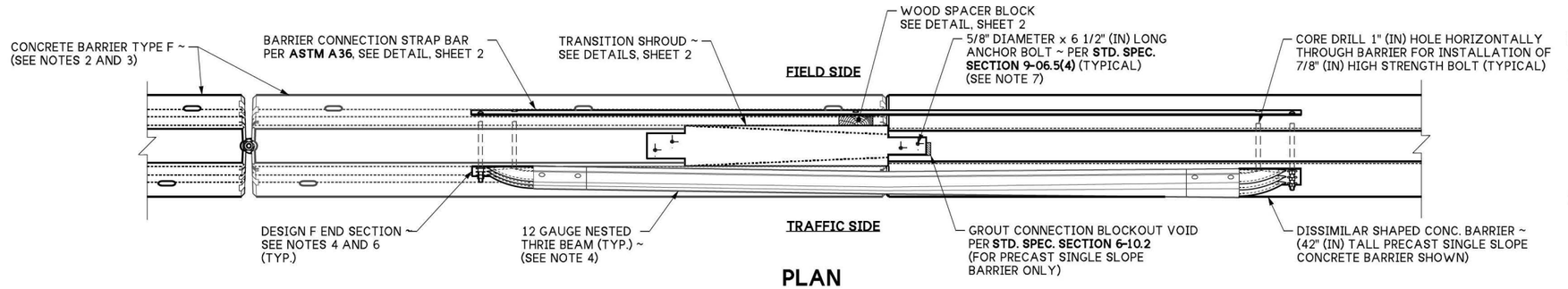
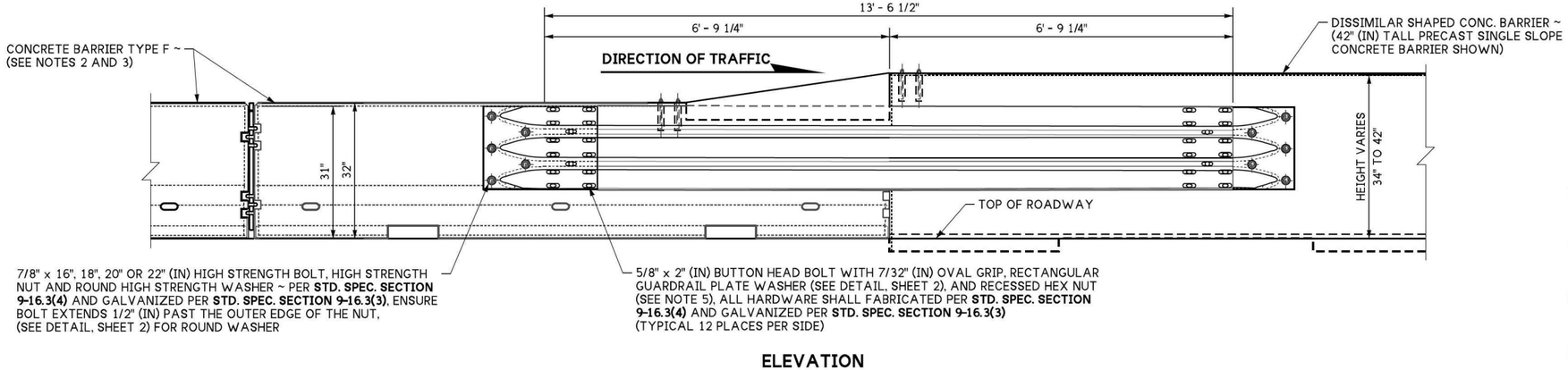
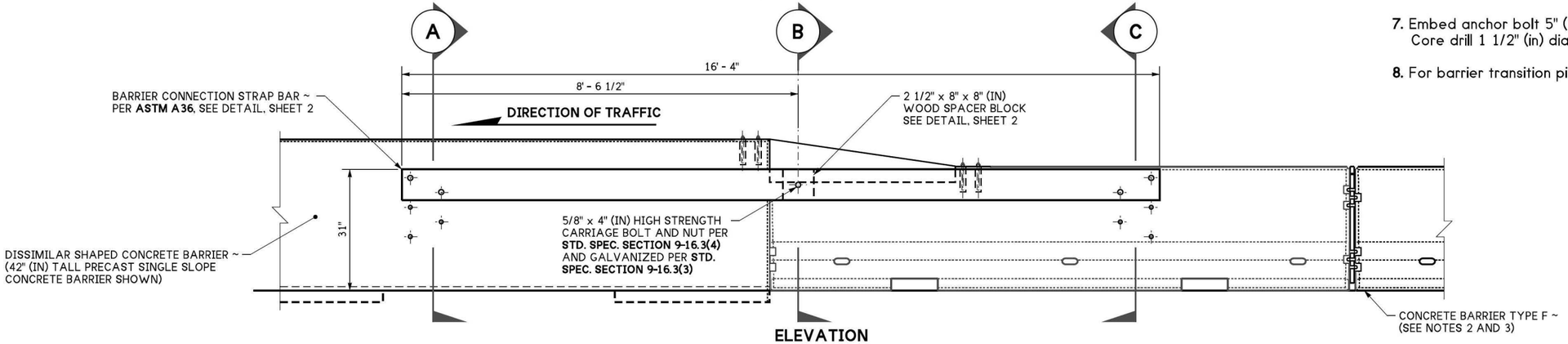


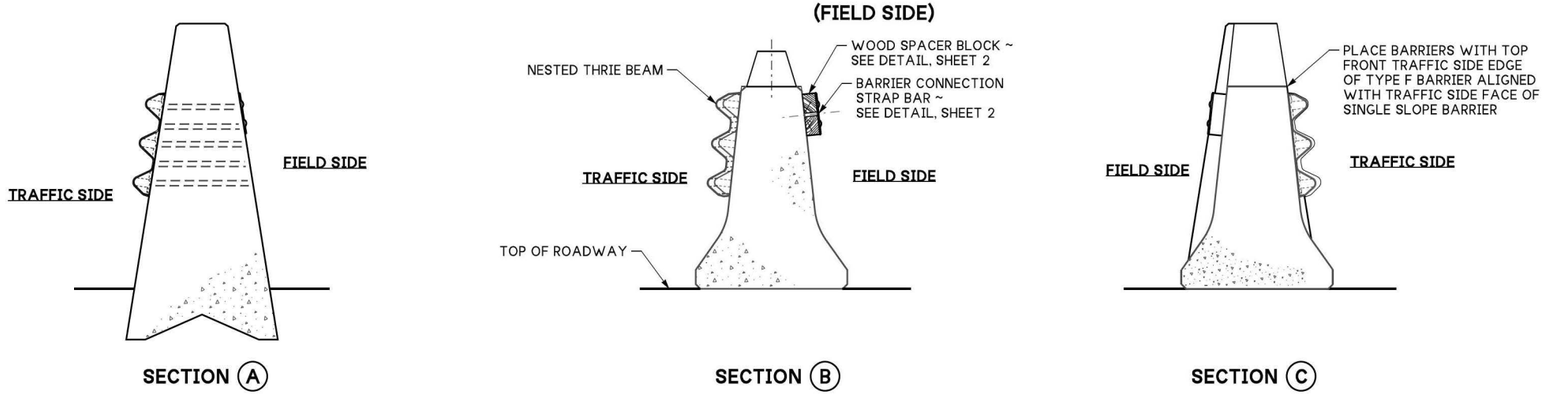
PLAN



ELEVATION (TRAFFIC SIDE)



ELEVATION (FIELD SIDE)



SECTION (A) SECTION (B) SECTION (C)

NOTES

1. The intent of this plan is to provide a transition from the anchored Type F concrete barrier system to various types of concrete barrier systems (e.g. Single Slope) up to 42" (in) tall. This transition plan applies to roadside or wide median applications where the barrier transition can be impacted on the Traffic Side Only. This transition can be installed on cement concrete pavement or hot mix asphalt pavement.

2. **Transition Installation Procedure**:

   1) Procure a segment of Type F Concrete Barrier (**Standard Plan C-60.10**).

   2) Cut the end loops off of the Loop Bars of the Type F section closest to the dissimilar shaped concrete barrier section.

   3) Abut the two sections and align the top front edges (Traffic Side) of the barrier sections. (See **Section C**, Sheet 1).

   4) Install the nested thrie beam on the Traffic Side, the barrier connection strap bar on the Field Side, and the transition shroud to secure the two barrier sections together.

   5) Install the anchor pins.

3. Refer to **Standard Plan C-60.10 Concrete Barrier Type F** for additional details not shown on this plan.

4. Refer to Thrie Beam Guardrail Detail, sheet 2 and **Std. Plan C-7a Thrie Beam End Sections** for additional details not shown on this plan.

5. Install rectangular guardrail plate washers under the bolt head on upstream end and under the nut on the downstream end. See Sheet 2, for details.

6. Lap thrie beam and thrie beam end section in the direction of adjacent traffic. The upstream thrie beam end section is installed on top of beam rail, and the downstream thrie beam end section is installed under thrie beam rail.

7. Embed anchor bolt 5" (in) into barrier and secure to barrier with Type I epoxy. Core drill 1 1/2" (in) diameter holes into top of barriers.

8. For barrier transition pinning details, See **Standard Plan C-60.70**.

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REGISTERED
PROFESSIONAL ENGINEER

Aug 13, 2026

PRECAST TYPE F BARRIER TO DISSIMILAR SHAPED BARRIER TRANSITION STANDARD PLAN C-60.20-02

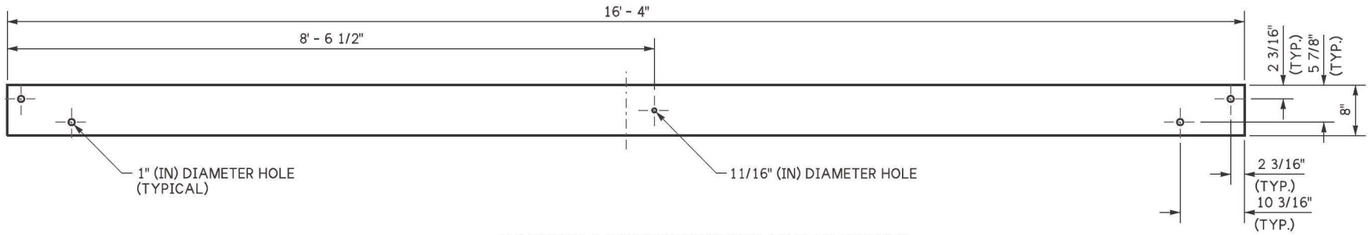
SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

Mark A Baines Aug 13, 2026

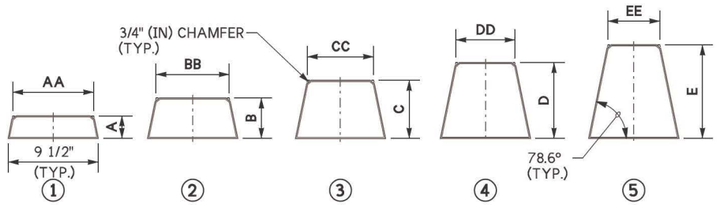
STATE DESIGN ENGINEER

Washington State Department of Transportation



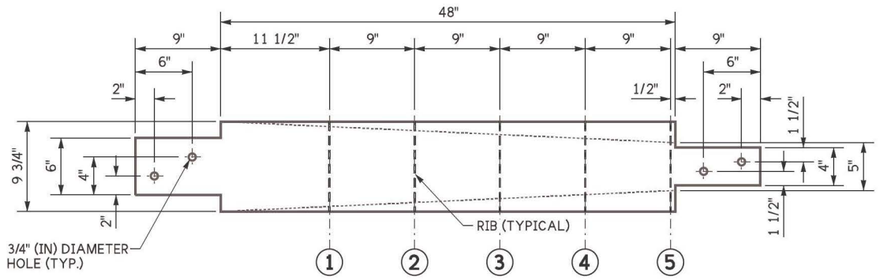
BARRIER CONNECTION STRAP BAR DETAIL

1/4" (IN) THICK STEEL PER **ASTM A 36**
HOT DIP GALVANIZED AFTER FABRICATION PER **AASHTO M 111** OR **ASTM F2329**

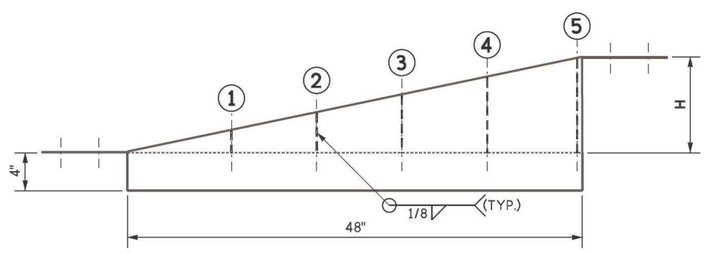


RIB DETAILING

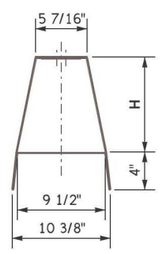
(10" HEIGHT (H) SHROUD SHOWN)



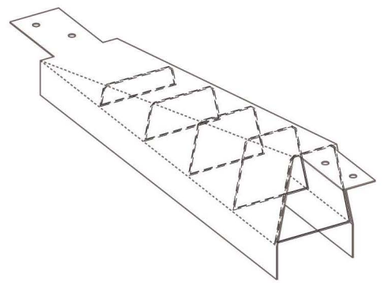
TOP



ELEVATION



RIGHT END



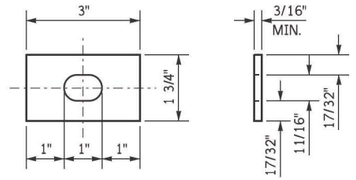
ISOMETRIC

TRANSITION SHROUD DETAIL

(10" (IN) TALL TRANSITION SHROUD SHOWN)
1/8" (IN) THICK STEEL PER **ASTM A36**
HOT DIP GALVANIZE, AFTER FABRICATION PER **ASTM F2329**

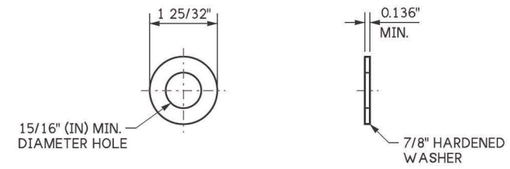
TRANSITION SHROUD TABLE

(H)	DIMENSION										NOTES
	A	AA	B	BB	C	CC	D	DD	E	EE	
2"	1/2"	7 13/16"	7/8"	7"	1 1/4"	6 1/4"	1 5/8"	5 1/2"	1 7/8"	4 3/4"	THE TOP AND SIDES OF THE SHROUD MAY BE FABRICATED FROM SEPARATE PLATES AND WELDED TOGETHER AT THE JOINTS, OR MADE FROM A SINGLE PLATE/SHEET AND BENT (BEND RADII - 1/4" (IN) MAX.) OR MADE WITH A COMBINATION OF BOTH METHODS.
4"	1"	7 13/16"	1 3/4"	7"	2 1/2"	6 1/4"	3 1/4"	5 1/2"	3 7/8"	4 3/4"	
6"	1 3/8"	7 13/16"	2 1/2"	7"	3 5/8"	6 1/4"	4 3/4"	5 1/2"	5 7/8"	4 3/4"	
8"	1 7/8"	7 13/16"	3 3/8"	7"	4 7/8"	6 1/4"	6 3/8"	5 1/2"	7 7/8"	4 3/4"	
10"	2 3/8"	7 13/16"	4 1/4"	7"	6 1/8"	6 1/4"	8"	5 1/2"	9 7/8"	4 3/4"	



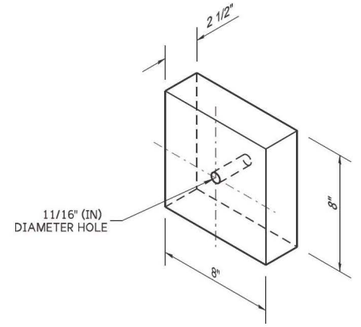
RECTANGULAR GUARDRAIL PLATE WASHER DETAIL

SEE NOTE 5
RECTANGULAR PLATE WASHER SHALL BE HIGH STRENGTH AND CONFORM TO **STD. SPEC. SECTION 9-16.3(4)** AND BE GALVANIZED PER **STD. SPEC. SECTION 9-16.3(3)**



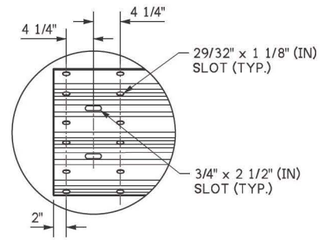
ROUND WASHER DETAIL

ROUND WASHER SHALL BE HIGH STRENGTH AND CONFORM TO **STD. SPEC. SECTION 9-16.3(4)** AND GALVANIZED PER **STD. SPEC. SECTION 9-16.3(3)**



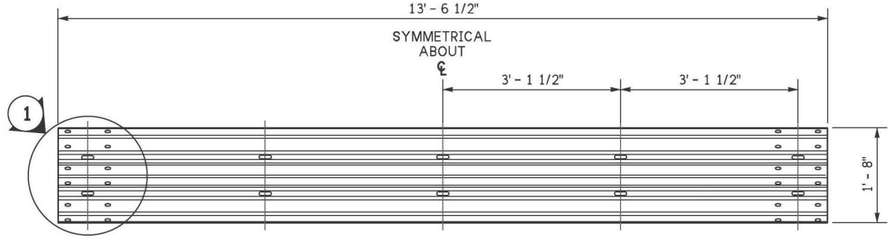
WOOD SPACER BLOCK DETAIL

WOOD BLOCK SHALL CONFORM TO **STD. SPEC. SECTION 9-09.2(2)** AND BE PRESSURE TREATED PER **STD. SPEC. SECTION 9-09.3(1)**



TYPICAL RAIL END DETAIL

THRIE BEAM RAIL ENDS ~ MIRROR IMAGE OF DETAIL



THRIE BEAM GUARDRAIL

TRANSITION SHROUD NOTES:

1. Prior to transition shroud fabrication, verify the height of the dissimilar shaped barrier that the 32" (in) Tall F-shape transition is abutting to. Shroud height: (H) ranges from 1" (in) to 10" (in) tall.
2. For dimensioning not shown in the table, interpolate dimensions.
3. No transition shroud is necessary if the dissimilar shaped barrier is the same height, or up to 1" (in) taller than the 32" (in) Type F barrier.
4. Barriers that Type F barrier may transition to include but are not limited to:
   A.) Concrete Barrier Type 2 ~ See **Standard Plan K-80.32** for details
   B.) Single-Slope Concrete Barrier (Precast) ~ See **Standard Plan C-70.10** for details
   C.) Single-Slope Concrete Barrier (CIP) ~ See **Standard Plan C-80.10** for details
   D.) High Performance (HP) Single-Sloped Concrete Bridge Barrier ~ See **Bridge Standard Drawings**
   E.) High Performance (HP) F-Shape Bridge Barrier ~ See **Bridge Standard Drawings**

Aug 13, 2026

PRECAST TYPE F BARRIER TO DISSIMILAR SHAPED BARRIER TRANSITION STANDARD PLAN C-60.20-02

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Washington State Department of Transportation